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Applicants:	Soner Yamen	§	Group Art Unit:	2617
Application No	10/596,399	§	Examiner:	Georgewill, Opiribo
Filed:	02/26/2007	§	Confirmation No:	6132
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Attorney Docket No: P19038-US1
 Customer No.: 27045

For: Method And Device For Handling User Equipment In A Communications Network

Via EFS-Web

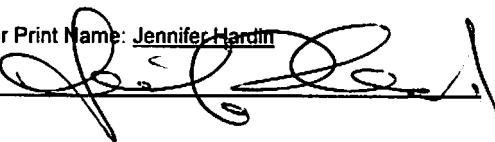
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APPEAL BRIEF SUBMITTED UNDER 35 U.S.C. §134

This Appeal Brief is submitted to appeal the decision of the Primary Examiner set forth in a Final Official Action dated March 2, 2010, finally rejecting claims 1-8 and 10, and an Advisory Action dated May 14, 2010, maintaining the claim rejections.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §41.20(b)(2) that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1379.

Real Party in Interest

The real party in interest, by assignment, is: Telefonaktiebolaget LM Ericsson (publ)
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 Stockholm, Sweden

Related Appeals and Interferences

None.

Status of Claims

Claim 9 was previously cancelled and is not appealed. Claims 1-8 and 10 are pending in the present application, each of which are finally rejected and form the basis for this Appeal.

Status of Amendments

The claims set out in the Claims Appendix include all entered amendments. No amendment has been filed subsequent to the final rejection.

Summary of Claimed Subject Matter

Claim 1	Specification Reference
1. A method in a core network node of a communications network, comprising at least a first access network and a second access network, for enabling a user equipment to access said communications network, wherein the first and second access networks have at least a partially overlapping service area, and wherein the user equipment located in a partially overlapping service area can be transferred from the first to the second access network, said method comprising the steps of:	Page 4, lines 23-29 Page 5, lines 1-5 Page 7, line 22, <i>et seq.</i> Figure 1
receiving in said core network node an indication of a request for transferring a user equipment from said first access network to said second access network;	Page 4, lines 27-30 Page 5, lines 1-3 Page 6, lines 20-24 Page 7, line 23, <i>et seq.</i> Figure 1, element 102
checking a transfer permission parameter value associated to said user equipment;	Page 4, lines 27-30 Page 5, lines 1-3 Page 6, lines 4-6 Page 8, line 6, <i>et seq.</i> Figure 1, element 104
determining that the transfer permission parameter value indicates that a transfer of the associated user equipment is permitted;	Page 5, lines 1-2 Page 6, lines 4-6 Page 8, lines 7-10 Page 9, lines 14-20 Figure 1, elements 105, 106
initiating, based on the determination,	Page 5, lines 2-3

the transfer of the user equipment from the first to the second access network.	Page 9, line 21, <i>et seq.</i> Figure 1, element 107
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Claim 7	Specification Reference
A device in a core network node of a communications network for selecting user equipment to be transferred from a first access network to a second access network, comprising:	Page 4, lines 23-29 Page 5, lines 1-5 Page 7, line 22, <i>et seq.</i> Figure 1 Figure 2, DEV2
an input output unit for sending and receiving messages, wherein the input output unit is adapted to receive an indication of a request for transferring at least one user equipment from said first access network to said second access network;	Page 4, lines 27-30 Page 5, lines 1-3 Page 6, lines 20-24 Page 7, line 23, <i>et seq.</i> Figure 1, element 102 Figure 2, element IOU2
a processing unit;	Figure 2, element PU2
a storage, whereby the storage is adapted to store transfer permission parameter value associated to user equipment;	Figure 2, element STO2
a determining unit for determining, based on a transfer permission parameter value associated to a user equipment, whether a transmission of the user equipment is permitted, whereby the processing unit is adapted to control the other units; and,	Page 5, lines 1-2 Page 6, lines 4-6 Page 8, lines 7-10 Page 9, lines 14-20 Figure 1, elements 105, 106 Figure 2, element DU2
a logical unit adapted to determine, based on the transfer permission parameter value associated to a user equipment, whether the user equipment belongs to a group of user equipment for which a preferred access network has been defined.	Page 8, line 25, <i>et seq.</i> Page 9, line 4, <i>et seq.</i> Figure 2, element LU2

Claim 10	Specification Reference
10. A core network node for performing a subscriber identification analysis, the core network node comprising electronic circuitry for determining, based on a transfer permission parameter value associated to a user equipment, whether a user equipment belongs to a group of user equipment for which a preferred access network has been defined and, if so, for initiating, based on the determination, the transfer of the user equipment from a first to a second access	Page 4, lines 23-25; page 6, line 28 through page 7, lines 1-3, page 8, lines 8-11; page 9, lines 22-24; page 10, lines 3-4; Fig. 2

network, said second access network being said preferred access network.	
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The specification references listed above are provided solely to comply with the USPTO's current regulations regarding appeal briefs. The use of such references should not be interpreted to limit the scope of the claims to such references, nor to limit the scope of the claimed invention in any manner.

Grounds of Rejection to be Reviewed on Appeal

- 1.) Whether claims 1-4, 7, 8 and 10 are unpatentable over Einola, *et al.* (U.S. Patent No. 6,772,964 B1) in view of Rasanen (U.S. Patent Publication No. 2002/0045477 A1); and,
- 2.) Whether claims 5 and 6 are unpatentable over Einola in view of Rasanen and Lescuyer (EP Publication No. 1,257,141 A1).

Arguments

1.) Claims 1-4, 7, 8 and 10 are patentable over Einola in view of Rasanen

The Examiner has rejected claims 1-4, 7, 8 and 10 as being unpatentable over Einola, *et al.* (U.S. Patent No. 6,772,964 B1) in view of Rasanen (U.S. Patent Publication No. 2002/0045447 A1). In a Non-Final Office Action dated June 5, 2009, the Examiner first rejected independent claims 1, 7 and 10, and certain dependent claims, as being anticipated by Einola. In response to that office action, the Applicant amended those claims to clarify that the claimed functionality is performed in a core network node, and submitted arguments traversing the rejection of the claims as anticipated by Einola. The Examiner then issued a Final Office Action on March 2, 2010, adding the additional teachings of Rasanen. For the following reasons, however, claims 1-4, 7, 8 and 10 are neither anticipated by Einola, nor obvious over Einola in view of Rasanen.

Einola discloses a method for handling a handover of a call of a mobile station from a serving wireless network to a neighboring wireless network. A core network node of the serving network generates a new network preference parameter based on capabilities of the mobile station and subscription data relating to the preference or permission of the user to utilize the neighboring network (Column 3, line 66 - column 4,

line 2) or receives it from an HLR or the mobile station (Col. 7, lines 31-36). The parameter is sent along with an ASSIGNMENT REQUEST from the controller of the core network to the controller of the radio access network (Column 6, lines 14-18). Einola, however does not disclose that the core network node checks the transfer permission parameter associated to the user terminal. Furthermore, the step of determining whether a handover of a call of the mobile station is to be performed is executed by the controller of the radio access network in response to the received parameter. In other words, determining that a transfer permission parameter indicates that a transfer of the associated user equipment is permitted, and that the user equipment belongs to a group of user equipment for which a preferred access network has been defined, are not executed by a core network node. Thus, Einola does not teach or suggest the claimed function of checking a transfer permission parameter value or the respective determining steps to be executed by a core network node. By enabling such function in a core network node, rather than a radio access network controller, a network operator can steer network traffic based on subscription and the service in use. When a network operator has such control, the usage of network resources can be optimized. As an example, a network operator may decide to push speech calls for low end users towards a 2G access network while directing high end user traffic to a 3G access network. Einola fails to disclose that functionality.

In the final office action, the Examiner asserted that "Einola discloses the claimed invention including that the MSC is a core network node (col 2, line 65) but does not explicitly disclose the BSC as a core network node." (Page 4, line 10, et seq.; emphasis added) The Applicant agrees that an MSC is a "core network node," as those skilled in the art understand, and that the teachings of Einola include a description of an MSC. The Applicant *disagrees*, however, with the Examiner's contention that a BSC is a "core network node."

As noted *supra*, Einola does not teach a core network node (e.g., an MSC) that performs the functions of determining that a transfer permission parameter indicates that a transfer of an associated user equipment is permitted, and that the user equipment belongs to a group of user equipment for which a preferred access network has been defined, *as recited in claims 1, 7 and 10*. To overcome that deficiency of

Einola, it appears that the Examiner is looking to the teachings of Rasanen as teaching that functionality being performed in a "BSC as a core network node." The Examiner states that "Rasanen . . . discloses that MSC and BSC are of the core network," referring to paragraph [0038]. The teachings of Rasanen in that paragraph, however, are not technically correct.

Rasanen states in paragraph [0038] that a "network control device . . . of the core network CN" includes both an MSC *and* a "BSC." (emphasis added) Figure 1 (shown below) of Rasanen, *however*, shows each BSC as being located *outside* the core network (CN); that is the conventional architecture known to those skilled in the art.

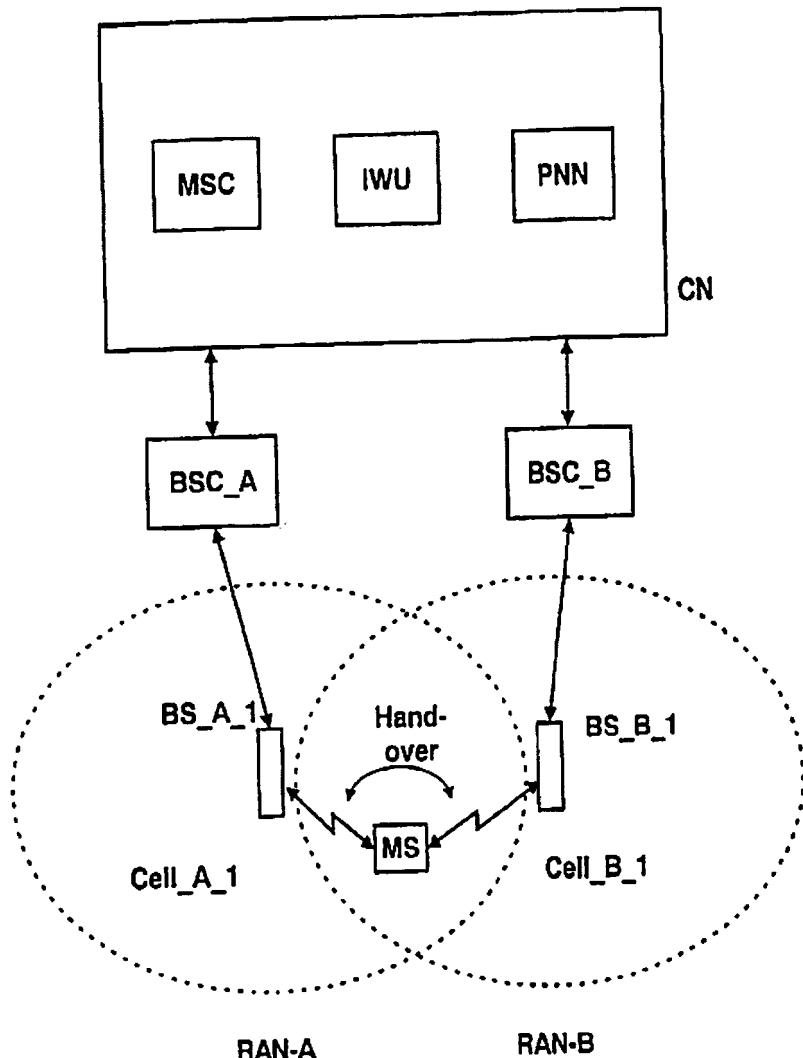
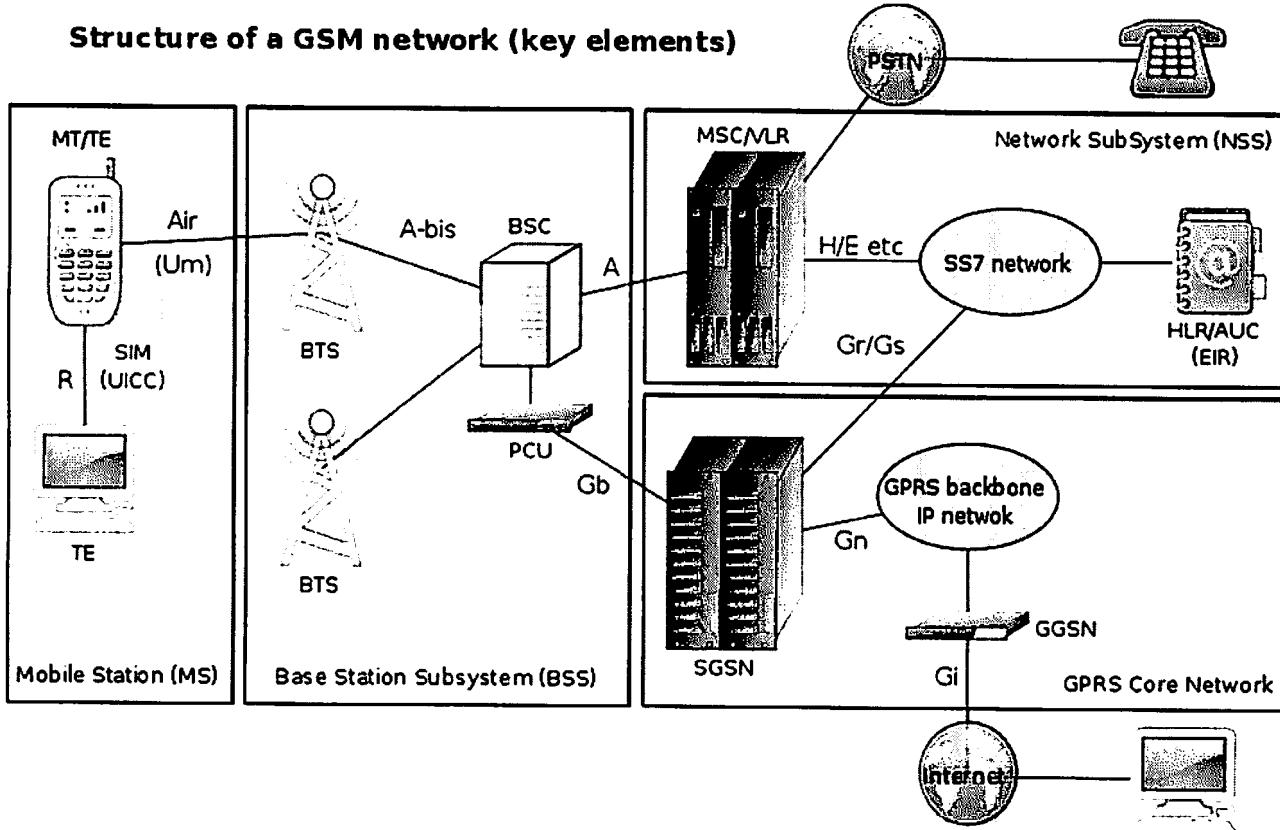


FIG. 1

Similarly to Figure 1 of Rasanen, the figure in the Wikipedia entry for Base Station Subsystem (BSS) identified as "Structure of a GSM network (key elements)" illustrates the BSS, including a BSC, as being outside of the NSS, as illustrated below.¹



Wikipedia describes the Network Switching Subsystem (NSS) as being "also referred to as the GSM core network."² In other words, the BSC is not in the GSM core network, as those skilled in the art understand – which corresponds both with Figure 1 of Rasanen and the Structure of a GSM Network presented by Wikipedia. Thus, the statement in paragraph [0038] of Rasanen is not technically correct; i.e., a BSC is not within the "core network." Therefore, as similarly noted *supra* with respect to Einola, Rasanen does not teach or suggest the claimed function of checking a transfer permission parameter value or the respective determining steps to be executed by a

¹ See: http://en.wikipedia.org/wiki/Base_station_subsystem#Base_Station_Controller and http://en.wikipedia.org/wiki/File:Gsm_structures.svg

² See: http://en.wikipedia.org/wiki/Network_switching_subsystem (emphasis added)

core network node. That technical distinction has important significance to Applicant's invention.

By implementing the claimed functions in a core network node, rather than a radio access network controller, a network operator can steer network traffic based on subscription and the service in use. When a network operator has such control, the usage of network resources can be optimized. As an example, a network operator may decide to push speech calls for low end users towards a 2G access network while directing high end user traffic to a 3G access network. Einola and Rasanen each fail to disclose that functionality in a core network node and, therefore, independent claims 1, 7 and 10 are not obvious in view of those references.

Furthermore, whereas claims 2-4 and 8 are dependent from claims 1 and 7, respectively, and include the limitations thereof, they are not obvious in view of Einola and Rasanen.

2.) Claims 5 and 6 are patentable over Einola in view of Rasanen and Lescuyer

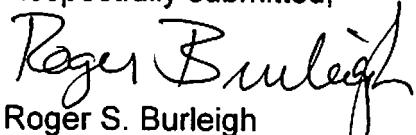
The Examiner has rejected claims 5 and 6 as being unpatentable over Einola in view of Rasanen and Lescuyer (EP Publication No. 1,257,141 A1). The Examiner has not pointed to any teaching in Lescuyer that would overcome the deficiency in the teachings of Einola and Rasanen as presented *supra*, and, therefore, claim 1 is not obvious in further view of Lescuyer. Therefore, whereas claims 5 and 6 are dependent from claim 1, and include the limitations thereof, they are also not obvious in view of those references.

* * *

CONCLUSION

The claims currently pending in the application are patentable over the cited prior art references and, therefore, the Applicant requests that the Examiner's rejections thereof be reversed and the application be remanded for further prosecution.

Respectfully submitted,


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CLAIMS APPENDIX

1. (Previously Presented) A method in a core network node of a communications network, comprising at least a first access network and a second access network, for enabling a user equipment to access said communications network, wherein the first and second access networks have at least a partially overlapping service area, and wherein the user equipment located in a partially overlapping service area can be transferred from the first to the second access network, said method comprising the steps of:

receiving in said core network node an indication of a request for transferring a user equipment from said first access network to said second access network;

checking a transfer permission parameter value associated to said user equipment;

determining that the transfer permission parameter value indicates that a transfer of the associated user equipment is permitted;

determining that the transfer permission parameter value indicates that the user equipment belongs to a group of user equipment for which a preferred access network has been defined; and,

initiating, based on the determination, the transfer of the user equipment from the first to the second access network.

2. (Previously Presented) The method according to claim 1, wherein an access network operates according to the standards defined for of one of a Global System for Mobile Communications, Wideband Code Division Multiple Access, Code Division Multiple Access, and Enhanced Data Rates for Global System for Mobile Communications Evolution.

3. (Previously Presented) The method according to claim 1, wherein the group of user equipment for which a preferred access network has been defined comprises user equipment with service capabilities limited to services which correspond to services supported by the second network.

4. (Previously Presented) The method according to claim 1, wherein the group of user equipment for which a preferred access network has been defined comprises user equipment associated to a subscription having permitted services that are limited to services which correspond to services supported by the second network.

5. (Previously Presented) The method according to claim 1, wherein the group of user equipment for which a preferred access network has been defined comprises user equipment associated to a subscription for which services are permitted that are not supported by the first network.

6. (Previously Presented) The method according to claim 1, wherein the group of user equipment for which a preferred access network has been defined comprises user equipment with service capabilities corresponding to services that are not supported by the first network.

7. (Previously Presented) A device in a core network node of a communications network for selecting user equipment to be transferred from a first access network to a second access network, comprising:

an input output unit for sending and receiving messages, wherein the input output unit is adapted to receive an indication of a request for transferring at least one user equipment from said first access network to said second access network;

a processing unit;

a storage, whereby the storage is adapted to store transfer permission parameter value associated to user equipment;

a determining unit for determining, based on a transfer permission parameter value associated to a user equipment, whether a transmission of the user equipment is permitted, whereby the processing unit is adapted to control the other units; and,

a logical unit adapted to determine, based on the transfer permission parameter value associated to a user equipment, whether the user equipment belongs to a group of user equipment for which a preferred access network has been defined.

8. (Previously Presented) The device according to claim 7, wherein the logical unit determines whether a user equipment belongs to said group by means of analysing a transfer permission parameter value associated to the user equipment.

9. (Cancelled).

10. (Previously Presented) A core network node for performing a subscriber identification analysis, the core network node comprising electronic circuitry for determining, based on a transfer permission parameter value associated to a user equipment, whether a user equipment belongs to a group of user equipment for which a preferred access network has been defined and, if so, for initiating, based on the determination, the transfer of the user equipment from a first to a second access network, said second access network being said preferred access network.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.